CONCORDIA UNIVERSITY

Graduate Studies News

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From the Dean's Desk (November 88)

Research Grants and Student Funding

Most of us have spent a good part of September and October preparing research grant applications for N.S.E.R.C., F.C.A.R., S.S.H.R.C. and other granting agencies. Awards from these agencies are granted on a competitive basis and are related to specific research objectives. Success or failure in these competitions depends on several factors. Among them is the success of the researchers in "producing" professionally sound graduates. In the case of F.C.A.R., the training of new researchers, i.e., of graduate students, is a necessary component of any research project. A successful graduate school therefore depends heavily on the ability of its faculty to secure high levels of research funding.

The reactions of professors to this reality are mixed.

In engineering and science departments, the annual ritual of applying for external research funding is part of the professional culture and is taken very seriously. Perhaps this is because success breeds success and because the criteria for the awarding of research grants in these fields are reasonable objective.

In the case of the arts, humanities, and social sciences, the situation is quite different. Professors tend to work in isolation on projects that often require relatively modest funding, per se, if the training of researchers is not taken into account. Therefore many professors rely on internal sources of funds for support. On the other hand, these internal funds are obtained by the university from the funding agencies as a percentage of funded research. A professor who has no funds therefore produces no additional funds for internal distribution. As a result, some graduate students in the arts, humanities, and social sciences are in frequent financial difficulty and their studies are prolonged beyond reasonable limits.

From the point of view of the graduate school as a whole, the reliance on internal sources of funding for graduate student support poses a serious problem. How can professors be convinced that their research activities, whether they involve library searches in the British Museum in London, or site visits to native communities in the far North, etc., can and probably should be designed in a way that they provide training and research opportunities for graduate students. Perhaps the answer lies in encouraging more interaction between the funded and non-funded sectors of the university community.

During the next few years, one of the objectives of the Division of Graduate Studies will be to exploit existing structures to promote the idea of the importance of

the links between funded research and graduate student support. We will take advantage of the existence of various discussion forums such as the Graduate Program Appraisal Committees, the Assembly of Graduate Program Directors and the Board of Graduate Studies to debate this issue.

There are, of course, several notable exceptions to this general comment on the lack of public funding in the arts, humanities and social sciences. At Concordia, Religion and Psychology are two typical examples. These disciplines have vastly different methodologies and objectives. What is common to both, however, is a deep commitment to the training of researchers. Graduate students are involved from the very beginning in on-going research projects under the guidance of established professors. It seems that, in both fields, professors conceive of learning not as a sequential process, where one skill has to be perfected before another one can be acquired, but rather as a dynamic process based on a simultaneous back-and-forth strengthening of all skills. Their success certainly provides food for thought.

M. E. Szabo (Dean)

Centres of Excellence

Five Concordia researchers and research groups will be submitting applications for grants under the "Networks of Centres of Excellence" (NCE) program.

The NCE is part of the Conservative Government's $5 billion research and development initiative announced last year. The program is designed to develop long term fundamental research in areas that will improve Canada's competitive edge in growing international markets.

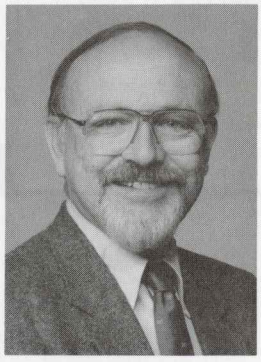
Last September marked the deadline for receipt of letters of intent. More than 230 letters were received for funding that will finally cover only about 15 projects. (Initially the NCE program was to receive between $250-$300 million over a five year period. Those figures, however, have been scaled down to $240 million over four years.)

The "network" idea of the NCE is to coordinate research expertise across the country. Researchers have submitted proposals which include plans to organize chains of research labs across the country, making optimum use of available resources.

Although the NCE has received some criticism for not injecting any new money into Canadian research (the money from the Federal Government is roughly equivalent to the amount it cut back in research spending when it first came into power), the program has stimulated considerable interest in the research community.

Says Cooper Langford, Associate Vice-Rector for Research: "This is going to be a tough competition. If it (NCE) succeeds, it will create something entirely new. It is encouraging leaders from across the country to set overall research goals and then determine which labs will be best able to contribute."

Cooper Langford
Associate Vice-Rector, Research



Researchers can participate in the NCE program as either organizers or participants of a network. There are five applicants from Concordia applying for grants, three of which come from the Department of Mechanical Engineering.

W.G. (Fred) Habashi is applying for grants to continue research in the area of computational fluid dynamics. This research involves the numerical modelling of flows, such as the flow of air over a wing in aerodynamics. The research has a wide variety of applications in areas as diverse as the generation of hydro-electricity and research into the structure of galaxies. Last year Habashi won the prestigeous Steacie Fellowship for his research.

S. Sankar's research application deals with a two-pronged effort in the study of transport systems. Transport research focuses on three areas: vehicles, routes and systems management. Sankar is seeking funding for research in the vehicle domain that will be conducted through CONCAVE (Concordia Centre for Computer Aided Vehicle Engineering). The corresponding research in systems management will be done at the Centre de recherche en transport (CRT) at the Université de Montréal.

S. Hoa is submitting an application for research into the development of composite material. These materials are increasingly replacing traditional building materials because they can give greater strength at lower weights. Hoa's proposed research will involve eight other universities in Canada.

The Communication Studies Department is submitting an application to set up an Information/Scholarship Evaluation Network (ISEN) that would group information technology professionals and academics into one network that would study and anticipate the impact of communication technology in Canadian society. A good foundation for establishing this network already exists within the joint doctoral program in communication.

Paul Fazio, from the Centre for Building Studies, is submitting an application for research into the management of indoor environments. His proposed research will be shared with the Gage Institute at the University of Toronto.

Other members of the Concordia faculty are listed as participants in other proposed networks that are being organized outside the university: members of the Department of Electrical and Computer Engineering are involved in a large telecommunications project; biologists have been enlisted for proposed research into an oil seeds projects; inorganic chemistry faculty members are involved in an advanced ceramics proposals, to name just a few of the many diverse areas to be tapped by the proposed Networks of Centres of Excellence.

Scholl Report

Four Concordia departments are actively seeking to establish new joint doctoral programs with other Quebec universities, says a recent report on the state of joint activity between Concordia and the Université du Québec à Montréal.

The report, written by Amelie Leibl-Scholl (Concordia) and Christine Bergeron (UQAM), was commissioned by the Deans of Graduate Studies at Concordia and UQAM. Its mandate is to document all current formal and informal ties between Concordia and UQAM relating to graduate studies and research. The report also contains an overview of the problems encountered organizing existing joint programs. It was written last summer and is based on extensive interviews with faculty members and administrators at the two universities.

The departments named in the report as actively involved in joint negotiations are Chemistry, Biology, Political Science and Art History. Negotiations are at different levels and most ventures are still at the speculative stage, especially in the case of the Political Science department. The Art History initiative is farther along with the last two years spent in discussions with representatives from UQAM and the Université de Montréal. Similar discussions have been in progress for two years between the Chemistry and Biochemistry departments.

Joint programs are becoming an increasingly popular option for organizing studies at the doctoral level. It is a particularly attractive option for universities such as Concordia and UQAM, where the implementation of new graduate programs have in the past had to be postponed when proposed as a sole venture because of resource and faculty budget implications.

To date, Concordia is involved in three joint doctoral programs in Montreal. The Ph.D. in Administration, shared between l'École des Hautes Études Commerciales de Montréal, UQAM, McGill and Concordia, is now 12 years old and has garnered an international reputation for excellence. The Ph.D. in Communication, jointly run between Concordia, UQAM and the Université de Montréal, is entering its second year and is serving as the model in negotiations for the Art History doctoral proposal. Collaboration with UQAM has broadened Concordia's well-recognized doctoral program in Religion, both in expertise and areas of concentration.

The Dean's report notes that the joint programs, which grew out of informal links between the universities, have enjoyed considerable success. Although problems do exist, uncoordinated administrative practices seem to be at the heart of most difficulties. The Dean's report is very preliminary and does not seek to make recommendations.

According to Bob Kavanagh, Executive Secretary to the Division of Graduate Studies, this report is only a first step in smoothing out the rough edges.

"If we can get concrete propositions (for dealing with specific problems) this year, we will have gone quite a distance," he says.

Still, the report documents a general opinion that more support staff to deal specifically with working with the different administrations would alleviate a number of the difficulties.

One of the complications encountered involves record keeping and transcripts. Transcripts do not record accurate titles and grades for courses at other universities. Courses taken at UQAM are registered on UQAM transcripts and are not always fully represented on Concordia transcripts. At Concordia, graduate student records are kept on a data system designed for undergraduates that is not adapted to show cross-registration.

A related problem identified by the Ph.D. in Administration program, arises from calendar differences at participating universities. There have been instances where students have missed internal university deadlines because their work was being done on different schedules at different universities. They have received unwarranted "Fs" or "Incompletes" on their transcripts, which take time to be reversed.

Leibl-Scholl says this is mainly a source of frustration for students, but it also has the potential to affect the award of research grants and other funding.

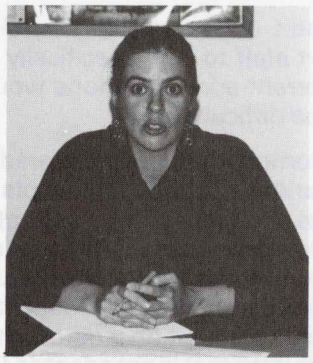
The report identifies different grading and billing systems as other problems. Each school has a different system and values attached to grades and there are no easy or agreed conventions on how to convert grades.

Dr. M. E. Szabo, Concordia's Dean of Graduate Studies hopes to use the findings of this report as a basis for future discussion with other universities offering joint programs with Concordia.

Sylvie Cloutier

Life has been moving pretty fast for Sylvie Cloutier, a recent graduate of the Diploma in Ecotoxicology Program. Cloutier, who received her B.A. in Biology from Laval in 1983, says she became interested in Ecotoxicology after working as a researcher on several environmental impact studies. Last June, she was hired by Lavelin Environment Inc. to build a data bank that would be a geographical and ecological profile of the St. Lawrence River. That project was completed at the end of the summer and she has since been rehired to organize and develop a new data bank system. Cloutier is equally busy in her personal life, having just given birth to her first child, but will be returning to work after a brief maternity leave.

Sylvie Cloutier



Cloutier oversees a team of computer operators, geographers and biologists who are using a new approach to computer-aided design to organize their data bank. Using the AUTOCAD design software, the group is developing a map of the St. Lawrence River. People using the system will mark off a section of the map on which they wish to collect data, and the computer will recall data pertaining to that area. The final data bank will be able to build environmental profiles of large and small scale areas of the St. Lawrence River. Cloutier says Environment Canada is watching this project with interest and hopes to use the data management technique on future projects.

The final data bank will be able to build profiles of regions in three basic areas: geographical, which will cover the structure and composition of the land and water; biological, which will profile the divisions of plant and animal life; and physical, which will show the effects and levels of pollutants and other human interventions in the area.

Ecotoxicology diploma director, Perry Anderson, is excited but not altogether surprised by Cloutier's recent success.

"She was an outstanding academic," he says, noting that Cloutier completed her diploma requirements in one academic year. (Ecotoxicology students normally spend three to four semesters completing diploma.)

Graduate Studies Newsletter

The GSN has changed its format to include feature articles on graduate student research interests, faculty teaching, innovative programs and special events. In order to keep the newsletter timely and interesting, both within and outside the university community, we are soliciting ideas from our readers for future articles.

If you are, or know of, a graduate student or faculty member writing an unusual thesis or involved in an unique research project or internship program, please let me know. Often it is the informal research projects, linked to the community, which provide the most interesting reading.

Any suggestions? Drop us a line or call with ideas that you would like to see in future issues of the Graduate Studies Newsletter.

D. MacFadden, Editor

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